

No. 15-1827

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

B.E. TECHNOLOGY, L.L.C.

Appellant,

— v. —

GOOGLE INC, MATCH.COM LLC,
PEOPLE MEDIA, INC.

Appellees.

Appeal from the United States Patent and Trademark Office
Before the Patent Trial and Appeal Board
Case IPR2014-00038
Case IPR2014-00699

Google's Opening Brief

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CERTIFICATE OF INTEREST

Pursuant to Federal Circuit Rule 47.4, Andrew J. Pincus, certifies the following:

1. The full name of the party represented by me is:

Google Inc.

2. The name of the real party-in-interest (if the party named in the caption is not the real party-in-interest) represented by me is:

N/a.

3. All parent corporations or any publicly held corporations that own 10% or more of the stock of appellee:

Google Inc. is a wholly owned subsidiary of Alphabet Inc., a publicly traded company (NASDAQ: GOOG, GOOGL). No publicly held company owns 10% or more of Alphabet Inc.'s stock.

4. The names of all law firms and the partners or associates that appeared for the party now represented by me in this proceeding are:

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December 8, 2015

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STATEMENT OF RELATED CASES

B.E. Technology L.L.C. (“B.E.”) properly states the related cases. *See* B.E. Tech. Br. 2. Google is aware of no other related cases.

INTRODUCTION

The Patent Trial and Appeal Board (the “Board”) held invalid claims 11, 12, 13, 15, 18, and 20 of U.S. Patent No. 6,628,314 (the “314 patent”). That determination was correct.

The ’314 patent describes a method for targeting advertising, based on certain demographic information, to users of online, computerized systems. Nothing about these claims was novel or non-obvious at the time the ’314 patent was filed. Online advertising methods, including those that use demographic information, were well understood.

The Board properly concluded that claims 11, 12, 13, 18, and 20 are anticipated by U.S. Patent No. 5,721,827 (“Logan”). And claim 15, which includes the use of a cookie on a user’s computer, is obvious in view of Logan and U.S. Patent No. 5,918,014 (“Robinson”).

JURISDICTION

B.E. Technology L.L.C. (“B.E.”) properly states the basis for jurisdiction.

ISSUES PRESENTED FOR REVIEW

1) Whether the Board correctly concluded that claims 11-13, 18, and 20 of the ’314 patent are anticipated by Logan. This turns on three questions:

1a) Whether the Board correctly concluded that Logan discloses the “selecting advertising content” limitation;

1b) Whether the Board correctly concluded that Logan discloses the “unique identifier” limitations; and

1c) Whether the Board correctly concluded that Logan discloses the “providing a unique identifier to the computer” limitation.

2) Whether the Board correctly concluded that claim 15 of the ’314 patent would have been obvious to a person of ordinary skill in the art over Logan in view of Robinson.

3) Whether the Board properly exercised its discretion in denying B.E.’s motion to amend its claims.

4) Whether, as this Court held in *In re Cuozzo Speed Technologies, LLC*, 793 F.3d 1268, 1275 (Fed. Cir. 2015), the Board was correct to use the “broadest reasonable interpretation” standard for claim construction during *inter partes* review.

STATEMENT

This appeal stems from the PTAB’s decision holding unpatentable claims 11, 12, 13, 15, 18, and 20 of the ’314 patent. The PTAB held claims 11, 12, 13, 18, and 20 unpatentable as anticipated by Logan, and it held claim 15 unpatentable as obvious over Logan and Robinson. A27.

A. The '314 Patent.

The '314 patent is directed to a system that provides software, downloaded to a user's computer, that presents targeted advertising based on demographic information. *See A122, 5:8-43.*

Independent claim 11 is a method claim that recites steps relating to the use of that system:

11. A method of providing demographically-targeted advertising to a computer user, comprising the steps of:

providing a server that is accessible via a computer network,

permitting a computer user to access said server via said computer network,

acquiring demographic information about the user, said demographic information including information specifically provided by the user in response to a request for said demographic information,

providing the user with download access to computer software that, when run on a computer, displays advertising content, records computer usage information concerning the user's utilization of the computer, and periodically requests additional advertising content,

transferring a copy of said software to the computer in response to a download request by the user,

providing a **unique identifier** to the computer, wherein said identifier uniquely identifies information sent over said computer network from the computer to said server,

associating said **unique identifier** with demographic information in a database,

selecting advertising content for transfer to the computer in accordance with the demographic information associated with said unique identifier;

transferring said advertising content from said server to the computer for display by said program,

periodically acquiring said **unique identifier** and said computer usage information recorded by said software from the computer via said computer network, and

associating said computer usage information with said demographic information using said **unique identifier**.

A130-31 (emphasis added).

In other words, claim 11 recites an advertising method in which computer software is downloaded to a user's computer; a unique identifier is provided to the computer; demographic information is acquired about the user; a server selects advertising to display to the user based on that demographic information; and the advertisement is ultimately displayed to the user.

Dependent claims 12, 13, 18, and 20 supply additional limitations that are not relevant to the issues on appeal. A131.

Dependent claim 15 provides:

15. The method of claim 11, wherein said providing a unique identifier step further comprises storing a cookie on the computer.

A131.

The specification provides additional context for the claims. Figure 1, for example, describes the “client software application” that resides on a user’s computer, which connects to an advertising and data management (“ADM”) server via the Internet.

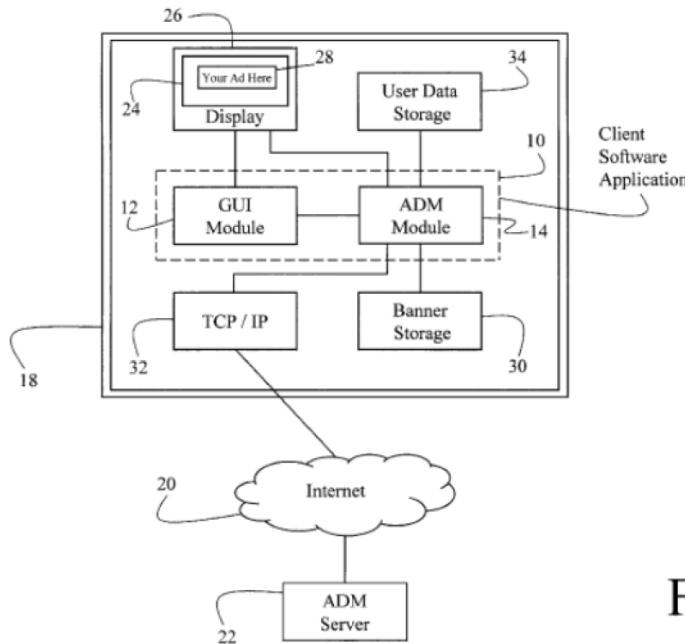


FIG. 1

A106.

The client software application is initially stored in the ADM server. A123, 7:24-28. The user, through his or her computer, may access the ADM Server “for the purposes of downloading and installing [the] software.” A123, 8:57-62. In response to the user’s request for downloading the software application, the ADM Server “sends a form to the user and then waits for the completed form to be posted back to the server.” A127, 16:60-63. The form provides demographic information about the user, and the

download process proceeds after the user returns the completed form to the ADM Server. A127-28, 16:66-17:15.

The demographic information may include, for example, the user's city, state, or area code. A128, 17:3-7. Once the ADM Server receives the demographic information, it "assigns a unique ID to the user and then stores that ID along with the received demographics data" in a user demographics database that is accessible by the ADM Server. A128, 17:11-17. This unique ID "anonymously identify[ies] the user for the purpose of demographically targeting advertising." A128.

Using the demographic information, the ADM Server "selects an initial set of banner advertisements," which are downloaded and stored on the user's computer. A128, 17:17-28. The client software application periodically reports computer usage information to the ADM server and periodically retrieves additional advertising content from the ADM server. A123, 7:40-49.

B. The Logan Prior Art.

U.S. Patent No. 5,721,827 ("Logan") discloses an electronic information distribution system that distributes personalized programming and advertising to subscribers based on user demographics and computer usage information. *See* A140, 1:7-10; A142, 5:31-36; A147, 15:62-67 (de-

scribing that “program segments” include programs, advertising, and announcements); A152, 25:4-25. The principal object of Logan’s system is to “deliver personalized information tailored to the personal interests and preferences of individual subscribers.” A140, 1:34-35.

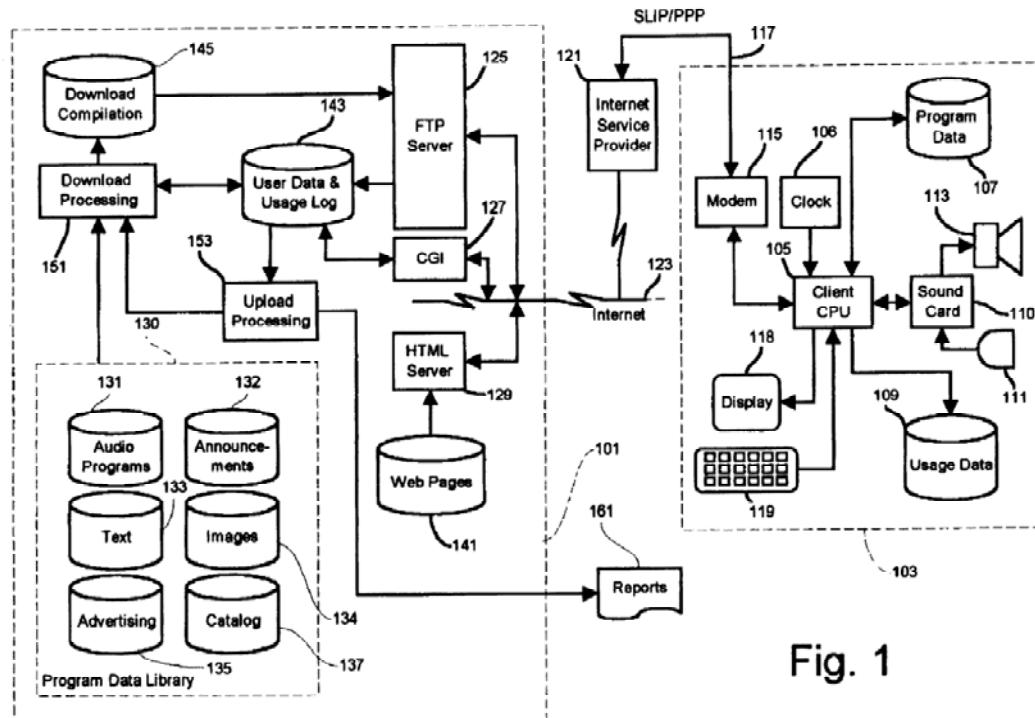


Fig. 1

As shown in Figure 1, Logan discloses a server 101 that is in communication, via the Internet, with the client station/player 103. The player may be “a conventional laptop or desktop personal computer” similar to the user computer of the ’314 patent. A141, 3:1-8. The server includes a “library consisting of a large number of diverse programs, and which incorporates mechanisms for selectively delivering a subset of those programs to a given subscriber.” A140, 1:42-45. The server also includes an

FTP server so that “utility programs and data may be downloaded from the FTP server 125 to the client/player 103.” A143, 8:54-56.

In Logan, a subscriber “invokes programming services by first supplying personal information and initial programming preferences during an account initialization procedure.” A142, 6:48-51. Personal information may include the subscriber’s “age, profession, sex and marital status.” A143-44, 8:64-9:11. The personal information is stored in Logan’s “User Data & Usage Logs” on the server. A142, 5:7-19. Additionally, Logan’s server also stores “usage data” that is maintained by the player and is “uploaded to the server as a requested file.” A143, 8:10-18.

Logan discloses storing the user’s preference, demographic, and usage information on the server by using the “AccountNo,” which is a [u]nique key” (A149, 20:41) and “is unique to each of its Account records.” A149, 20:65-66. For example, Logan explains that each time the player uploads a usage log to the server, the usage log includes UsageRecords, which have the following structure:

```
UsageRecord = record
    Subscriber: integer;
    ProgramID: integer;
    Start: datetime;
    Volume: Integer;
    PlayingSpeed: Integer;
end;
```

A152, 26:9-19. Each usage record includes a “Subscriber field contain[ing] the AccountNo of the subscriber” that is used to identify the user whose usage record is being uploaded. A152, 26:9-22. Logan’s server stores both a “Subscriber Table 313” and an “Accounts Table 321.” A149, 20:40-54. Each of those tables is indexed by the AccountNo field. *Id.*

Using the information stored in the “User Data & Usage Logs,” Logan’s server “deliver[s] personalized information tailored to the personal interests and preferences of individual subscribers.” A140, 1:34-35. For example, Logan provides that “[b]ecause personal data describing each subscriber’s subject matter interests is available, along with personal data (age, marital status, zip code, etc.), particular advertising segments may be directed to only those subscribers having a likely interest in the goods or services advertised.” A144, 9:39-43.

In order to select advertisements based on a user’s demographic and usage information, Logan uses an algorithm that matches the characteristics of a program to the interests and demographics of each subscriber. A151, 24:33-49. Specifically, Logan uses a DemographicsMatch value, which “returns a value based on an advertiser specified relationship based on the subscriber’s personal characteristics (age, sex, marital status, size of household, etc.).” A152, 25:8-10.

The fields of the Subscriber Table 313 and Advertisements Table 311 that are compared by the matching algorithm are shown below:

Subscriber Table 313	Advertisements Table 311
<pre> Subscriber = record AccountNo: integer; Birthdate: Date; Sex, MaritalStatus: Char; HouseholdSize: byte; Interests: array[0..15] of integer; TopChoices, ChoiceCounts: array[0..15] of integer; ChargeLevel: byte; DataRate: Integer; Capacity: Integer; WeekDays: array[0..6] of Compilation; end; </pre>	<pre> Advertisement = record ProgramID: integer; AccountNo: integer; DemographicMatch: function; DemographicWeight: byte; Earliest, Latest: datetime; Subscribers: integer; Repeats: byte; end; </pre>

A149, 20:40-64 (annotations added).

Each advertisement record in Advertisements Table 311 includes a “DemographicMatch” field and a “DemographicWeight” field. “The attributes of the subscriber (birthdate, sex, marital status, and household size) specified in the subscriber record may be matched against the corresponding descriptions contained in the subject and program Program_Segment records (youngest, oldest, male, female, houselow, househigh). . . .” A151, 23:28-35. For advertisements, the parameters describing each ad in Advertisement Table 311 are provided by the advertiser: “[a]n advertis[ing] supplied function defining this relationship is specified by the DemographicMatch function_id field.” A151, 23:36-39. This information is then used to select advertisements that are displayed to a user. A150-52.

C. The Robinson Prior Art.

U.S. Patent No. 5,918,014 (“Robinson”) is directed to “display[ing] advertising to users of an inter active communications medium.” A167, 1:12-13. Robinson discloses using Smart Ad Boxes, *i.e.* “an area on a Web page [] which is used to display Web advertising.” A168, 4:9-10. These boxes present different ads over time. A168, 4:51-52.

Robinson discloses downloading a “screensaver” computer program that tracks the activity of the user. *See* A172, 11:18-40. Among the user activity tracked by Robinson are the “choices of Web sites [] visited, the frequency of such visits, [and] the nature of the content at those sites[.]” A167, 2:36-38; *see also* A167, 2:43-45. The tracking of a subject’s activities can be performed by “software running on the consumer’s computer, such as an [sic] Netscape-style in-line plug-in, a screensaver working in conjunction with the Web browser, or the Web browser itself.” A167, 2:52-56; A172, 11:14-12:55. Robinson also discloses that “tracking code could be built into the Web browser itself.” A171-72, 10:64-11:10.

Robinson also discloses “using the Netscape Navigator’s cookie mechanism . . . to accurately track the 70% to 80% of Web users who use the Netscape product.” A171, 9:38-44. In Robinson, a tracking cookie is created when a user accesses a tracking-enabled page for the first time,

and “[t]he value of the Tracking Cookie could be generated using a random number generator. . . .” A171, 10:19-20. “The Tracking Cookie is then stored on the user’s machine using the Netscape cookie mechanism; each time from then on that a user visits a tracking-enabled page, the stored Tracking Cookie will be used to re-identify that user.” A171, 10:23-26.

D. The Proceedings Below.

B.E. sued Google, in the United States District Court for the Western District of Tennessee, for allegedly infringing the ’314 patent. A3. B.E. served Google with the complaint on October 9, 2012. A3. On October 8, 2013, Google filed a petition with the United States Patent and Trademark Office requesting *inter partes* review of claims 11-13, 15, 18, and 20 of the ’314 patent; that petition was supported by an expert declaration from Dr. Stephen Gray. A47-48; A178-264.

On April 9, 2014, the Board instituted *inter partes* review on the grounds that: (1) claims 11-13, 18, and 20 are anticipated by Logan; and (2) claim 15 would have been obvious over the combination of Logan and Robinson. A1088. Appellees Match.com LLC and People Media, Inc. filed a petition and motion to join Google’s proceeding. A2. The Board granted the joinder motion. A2.

B.E. subsequently filed a patent owner response with a supporting expert declaration of Neal Goldstein. A2. Google replied and submitted a further expert declaration of Dr. Stephen Gray in rebuttal. A2. B.E. also filed a motion to amend its claims, which Google opposed. A2. The Board held an oral hearing on December 10, 2014. A2010-67.

On March 31, 2015, the Board issued a final written decision finding that claims 11-13, 18, and 20 were anticipated by Logan, and that claim 15 would have been obvious over Logan in view of Robinson. A27. The Board also denied B.E.'s motion to amend its claims. A28.

SUMMARY OF THE ARGUMENT

The Board correctly decided this case.

I. The Board correctly found that Logan anticipates claims 11, 12, 13, 18, and 20 of the '314 patent. B.E. advances three purported limitations that it contends are not present in Logan, but each of its arguments fail.

Selecting advertising content. B.E. contends that the '314 patent requires the use of demographic information to select which particular advertisements to display to a user. In B.E.'s view, Logan does not use demographic data to "select" advertisements; rather, it contends that Logan uses demographic data to "prioritize" already selected advertisements. B.E.

is wrong. Logan does, quite expressly, disclose the use of demographic information in selecting advertisements in the first instance. And, in any event, “prioritization” based on demographic information is a form of “selection” contemplated by the claims.

Unique identifier. B.E. contends that the unique identifier described in the ’314 patent is limited to one that uniquely identifies a *computer*—not a *user*. B.E. contends that Logan does not anticipate this limitation because it discloses only an element that uniquely identifies a *user*. But B.E. misconstrues “unique identifier” in the ’314 patent. B.E.’s unduly narrow construction is contrary to the plain text of the claim; it is disproven by dependent claim 16, which specifically limits the unique identifier of independent claim 11 to one that identifies a *user*; and it would exclude preferred embodiments described by the specification.

Providing a unique identifier to the computer. Finally, B.E. contends (1) that claim 11 requires that the *server* provide the unique identifier to the computer but (2) that Logan does not disclose this element. B.E. is wrong on both counts: its proposed construction of its claims is impermissibly narrow and, in any event, B.E. is incorrect about what Logan discloses.

II. The Board also correctly concluded that claim 15 of the '314 patent is obvious in view of *Logan* combined with *Robinson*. Claim 15 requires the use of a cookie to store information on a user's computer. B.E.'s sole argument is that *Logan* failed to disclose, on its face, the motivation for why one skilled in the art would make the combination. But, as the Board found, the motivation is plainly expressed by *Robinson*. As *Robinson* explains, using a cookie provides greater security and addresses privacy concerns.

III. The Board properly rejected B.E.'s request to amend its claims. B.E. failed to provide constructions regarding key terms, making assessment of B.E.'s proffered amendments impossible. Moreover, B.E. failed to tie its amendments to the application, and therefore did not demonstrate sufficient written description support. The Board's decision was well within its discretion.

Additionally, the amendments that B.E. proposes are futile. The limitations that B.E. seeks to add—to the extent that we understand them—were well known in the art at the time.

IV. Finally, the Board was correct as to the governing claim construction standard; the broadest reasonable interpretation of the claim language is proper. *In re Cuozzo Speed Techs.*, 793 F.3d at 1275. That said,

the same result would be reached under the claim construction test that applies in litigation. As a result, the holding of *Cuozzo* is largely immaterial to this case.

STANDARD OF REVIEW

“Anticipation under 35 U.S.C. § 102 is a question of fact, while obviousness under § 103 is a question of law based on underlying findings of fact.” *Kennametal, Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d 1376, 1381 (Fed. Cir. 2015). The Court “review[s] the Board’s factual findings for substantial evidence.” *Id.* “This is a deferential standard of review;” “[i]f the evidence in record will support several reasonable but contradictory conclusions, [the Court] will not find the Board’s decision unsupported by substantial evidence simply because the Board chose one conclusion over another plausible alternative.” *Inphi Corp. v. Netlist, Inc.*, 2015 WL 7076139, at *3 (Fed. Cir. 2015). The Board’s legal findings are reviewed *de novo*. *Kennametal*, 780 F.3d at 1381.

ARGUMENT

I. The Board Correctly Found That Logan Anticipates Claims 11, 12, 13, 18, And 20.

The Board correctly determined that U.S. Patent No. 5,721,827 (“Logan”) discloses all limitations of, and thus anticipates, independent claim 11, as well as its dependent claims 12, 13, 18, and 20. A11-A20. On appeal,

B.E. argues that Logan does not disclose three limitations in independent claim 11—the “selecting advertising content,” the “unique identifier,” and the “providing a unique identifier” limitations. None of these contentions withstands scrutiny.

A. Logan discloses the “selecting advertising content” limitation.

The Board was correct to conclude that Logan discloses the “selecting advertising content for transfer to the computer in accordance with the demographic information” associated with said unique identifier limitation in claim 11. A16-A20. Indeed, it is a fundamental aim of Logan to deliver programming segments, including advertisements, based on the user’s demographic information. *Id.*

B.E. concedes that Logan “utilizes demographic information.” B.E. Br. 15. But B.E. argues that “Logan does not use demographic information to ‘select advertising content for transfer’” based on the assertion that Logan uses demographic data only to “*prioritize[] previously selected advertisement program segments.*” *Id.* (emphasis added).

B.E.’s argument fails for two reasons. *First*, Logan explicitly teaches that demographics are not used just to prioritize advertisements, but also to select advertisements for inclusion in the first instance. *Second*, prioritizing advertisements based on demographics is the kind of “selection”

contemplated by the '314 claims. The Board so held on both points. A16-A20.

First, Logan *does* disclose using demographic data to select advertisements that are displayed to a user. B.E.'s argument that the demographic match function is used only for "prioritization" (see B.E. Br. 15, 16, 20, 21) is simply wrong. Several passages of Logan unequivocally refute B.E.'s position.

Logan states: "Program segments are *selected for inclusion* in the output Schedule Table 307 and/or the NewCatalog Table 308 by comparing the content of the Programs Table 303, the Subscribers Table 313 and the Advertisements Table 311." A149, 20:31-34 (emphasis added). Logan's Schedule Table 307 is the list of program segments that are transferred to the subscriber's computer and displayed to the user. A147, 16:65-17:1. Importantly, "program segments" in Logan's disclosure "include programs, *advertising* and announcements." A147, 15:62-65 (emphasis added). The advertisements that are "selected for inclusion" in the "Schedule Table 307" are, therefore, the advertisements that are ultimately displayed to a user.

The specific manner in which these program segments are selected is further described:

Program segments which are of interest to the user and *which should be included in either the Schedule Table 307 or the Catalog Table 308 may be automatically identified* by the following mechanism: ...

The attributes of the subscriber (birthdate, sex, marital status, and household size) specified in the Subscriber record may be matched against the corresponding descriptions contained in the subject and program Program_Segment records (youngest, oldest, male, female, houselow, househigh) to identify programs and categories of programs likely to be of interest to a subscriber having those attributes. An advertiser-supplied function defining this relationship is specified by the DemographicMatch function_id field of the Advertiser record, as discussed below.

A150, 22:31-23:39 (emphasis added). That passage plainly states that the user's demographics are used to select program segments, including advertising, to include in the schedule table. B.E. attempts to sidestep this disclosure by arguing that it relates only to "programs," not advertisements. B.E. Br. 20. But, as we explained, Logan's "program segments" expressly *include* advertisements. A147, 15:62-65.

Logan's section entitled "Targeted Advertising" provides further detail regarding the use of demographic information in generating Schedule Table 307's selected material. There, Logan explicitly teaches how the demographics are used to "*identify and insert advertising program segments* into the Schedule Table 307." A151, 24:2-5 (emphasis added); *see also* A17 (Board decision). To "identify" the advertising to send to a user, the dis-

closed system “utilizes additional information which describes each advertisement to be placed before subscribers.” A151, 24:4-6. This “additional information” includes a ProgramID that “identifies a “Program_Segment record … which describes the content of the advertisement itself.” A151, 24:8-10; *see also* A17-18 (Board decision). This “Program_Segment” data, in turn, specifically includes demographic information regarding the target audience, including age range, gender, marital status and size of household. A149, 19:48-62; *see also* A18 (Board decision).

Logan goes on to explain that “[t]he remainder of the Advertisement record contains additional information used to control the manner in which the identified advertising program is *selected for insertion* into the programming supplied to subscribers.” A151, 24:10-15. Specifically, Logan teaches that advertisements are selected based on two matching functions: InterestMatch and DemographicsMatch. A151-52, 24:20-25:14. After describing the InterestMatch, Logan states:

In addition to the InterestMatch, value determined above, *weight may be given to the subscriber's personal characteristics* using a similar weighting function specified th [sic] the function_id DemographicMatch which, like interest match, returns a value based on an advertiser specified relationship *based on the subscriber's personal characteristics (age, sex, marital status, size of household, etc.)* as previously noted.

A152, 25:4-10 (emphasis added); *see also* A18-19 (Board decision). Thus, DemographicMatch—which, of course is based on demographic information—plainly *is* used to select advertisements.

B.E.’s contrary argument rests entirely on the paragraph that follows, which discusses *also* using “DemographicMatch” to *prioritize* advertisements that have already been scheduled:

All advertisements *scheduled* for a given subscriber may *then* be prioritized based on the resulting calculated weight assigned to each advertisement by matching algorithms which compare the characteristics of the subscriber with the makeup of the target audience defined by the fields of the Advertisement record. These advertisements are then preferably inserted into the programming Sequence with the advertisement having the highest weight being scheduled to occur first in the sequence, thereby insuring that the best fitting advertisements are included in the programming and most likely to be played by the subscriber.

A152, 25:15-25 (emphasis added). *See* B.E. Br. 15, 20-21.

This passage states that *after* Logan utilizes user demographic data (along with other data) to select which advertisements it will display to a user, it uses that same information *again*, but in weighted fashion, to *prioritize* the order in which the advertisements will be displayed, so as to complete the “Schedule Table 307.” That is why the word “*then*” is used in the first sentence of the relevant passage.

All of these passages consistently say the same thing: user-supplied demographics are used to “identify” and “select for inclusion” the particular advertising segments to be shown to a subscriber. For these reasons, the Board correctly concluded that “program segments, including those that contain advertising content, first are scheduled or selected based on a comparison of the fields in the Program_Segment record, such as Youngest/Oldest, Male/Female, MaritalStatus, and HouseLow/HouseHigh, with the Subscriber record, including Birthdate, Sex, MaritalStatus, and Householdsiz.” A19. Because “Logan discloses that advertisements are scheduled or selected based on the demographic information of a subscriber,” the Board correctly found that Logan discloses the “selecting advertising content” limitation of claim 11. A19.¹

Second, B.E.’s argument fails for the independent reason that B.E. is wrong in contending that the “prioritizing” function does not qualify as “selecting.” “Prioritization” is a kind of “selection” that is contemplated by the claims. The Board correctly held as much: “the reordering or reselect-

¹ B.E. complains, in a single sentence, that the Board did not consider expert testimony. B.E. Br. 17. But no extrinsic evidence is necessary given that the disclosure of Logan is clear on its face. In any event, B.E.’s brief does not cite expert testimony in support of its position; it cannot, therefore, attempt to do so in reply. And Google’s expert provided clear testimony in support of the conclusion that Logan discloses the use of demographic information to select advertising. A231-32.

ing of the sequence of scheduled program segments based on a prioritization function based on demographic information also meets the limitation ‘selecting advertising content’” A20.

B.E. focuses on Logan’s “DemographicWeight” function. B.E. Br. 21. But this aspect of Logan discloses that advertisements are “preferably inserted into the programming Sequence with the advertisement having the highest weight being scheduled to occur first in the sequence, thereby insuring that the best fitting advertisements are included in the programming and most likely to be played by the subscriber.” A152, 25:15-25. In other words, Logan directs the method to choose, among the range of possible advertisements, the advertisement that should be displayed first (and second and so on) to a user *based on demographic data*.

There is no escaping the conclusion that this too is an act of “selecting.” Consider, for example, a pool of fifty possible advertisements that could be displayed to a user. Saying that a method “prioritizes” a particular advertisement to be displayed first based on demographic data is identical in substance to saying that the method “select[s] advertising content ... in accordance with the demographic information.” A130, 22:67-67. That is the very definition of the word—to “select” means “to choose from a

number or group.” Webster’s Third New International Dictionary 2038 (1981).

On the face of it, accordingly, the “prioritizing” function in Logan anticipates the “selecting” function in the ’314 patent. B.E.’s argument to the contrary rests on nothing more than false distinctions.

On appeal, B.E. appears to make an additional argument—that this prioritization occurs after the advertisements are “selected for transfer.” B.E. Br. 17. B.E. cites nothing in support of this contention, which is also mistaken. The “prioritization” process in Logan is part of the generation of the “Schedule Table 307” itself. A151-52, 24:1-25:25. And it is “the recommended Schedule Table 307 which is transferred to the subscriber, along with program segments, during the download transfer.” A147-48, 16:65-17:1. This aspect of the selection therefore occurs *prior to* the transfer of advertisements to the user. This is accordingly no basis to distinguish Logan.

B. Logan discloses the “unique identifier” limitation.

The Board also was correct to conclude that Logan, through its “AccountNo” feature, discloses the “unique identifier” that is required in multiple aspects of independent claim 11 of the ’314 patent. A12-A14.

It is undisputed that Logan’s “AccountNo” element is an identifier that “is unique to each of its Account records.” A149, 20:64-66. Moreover, “[a]dditional information about each active subscriber is contained in the Subscriber record indexed by AccountNo.” A150, 21:10-12. Logan therefore discloses the use of a unique identifier with respect to a particular user. B.E. does not disagree. *See* B.E. Br. 22.

In arguing that Logan does not disclose the “unique identifier” used in claim 11 of the ’314 patent, B.E. raises a claim construction dispute. B.E. contends that the “unique identifier” disclosed by claim 11 must uniquely identify *a computer*. B.E. Br. 22-24. For this reason, B.E. argues that Logan’s “AccountNo” feature—which uniquely identifies *users*, not computers—does not anticipate the “unique identifier” feature of the ’314 patent.

The Board rejected that argument. In the Board’s view, while “the scope of the ‘unique identifier’ is not *limited* to identifying a user,” it does “encompass[] information that uniquely identifies a user.” A8.

The Board’s determination is correct. The “unique identifier” of claim 11 must be tied to *information*. But claim 11 does not limit the “unique identifier” to a particular *kind* of “information.” A12-A13. And it does not require unique identification of a specific computer. *Id.*

B.E.'s effort to substantially narrow the construction of the term "unique identifier" fails for three reasons. *First*, B.E. misconstrues the plain meaning of the claim language. *Second*, any possible doubt on this point is resolved by dependent claim 16, which requires that one form of a "unique identifier" provide user-specific information. And, *third*, B.E.'s construction is also at odds with the specification of the '314 patent, which repeatedly discloses user-specific embodiments.²

First, B.E.'s argument rests on a misinterpretation of the plain text of claim 11. B.E.'s argument turns, almost entirely, on this limitation of claim 11:

providing a unique identifier to the computer, wherein said identifier uniquely identifies information sent over said computer network from the computer to said server.

A130, 22:59-62. B.E. contends that, because the "unique identifier" "uniquely identifies information sent ... *from the computer*," the unique identifier *must* identify a specific *computer*—and cannot, therefore, identi-

² Our principal contention is that B.E.'s proposed claim construction fails under *any* standard, including that applicable in litigation. *See Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). But if there is any plausible doubt as to the correct construction, the broadest reasonable interpretation standard that applies in the context of *inter partes* review demonstrates, decisively, that the Board's construction is correct. *See In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268 (Fed. Cir. 2015).

fy just a *user*. See B.E. Br. 22-23. B.E. repeatedly repackages this same argument throughout its brief. *Id.* at 22, 23, 24, 25, 26, 29.

B.E. misunderstands this limitation. What the “unique identifier” must identify is “information.” A130, 22:59-62. That is the object of the core phrase: the “identifier” (subject) “identifies” (verb) “information” (object). The claim does not describe *what* information the “unique identifier” must identify. (As we will explain, *infra*, 28-30, certain dependent claims *do* specify particular kinds of information.)

B.E. attempts to conjure a limitation from the clause by stating that this information is “sent over said computer network from the computer to said server.” B.E. Br. 22-23. But this clause just explains *how* the information is sent—the method uses a computer, network, and a server. It says nothing as to the *content* of the information.³

Indeed, that information is sent “from the computer” is inherent in the fact that this is a computerized method. This clause would be written in identical fashion regardless of whether the “unique identifier” was in-

³ B.E.’s quotation, moreover, removes the claim’s “computer network” and “server” elements, by using the shorthand phrase “information sent from the computer.” See, e.g., B.E. Br. 24. But that is not the phrase that the claims use. It is “information sent over said computer network from the computer to said server.” The latter formulation makes even clearer that this clause describes the mechanics of how information is sent, not the content of the information itself.

tended to be computer-specific, user-specific, or both. There is nothing “difficult” about this understanding. B.E. Br. 23. The “identifier” may “uniquely identify information” about a user (or the user’s computer, or something else altogether), and that information may be “sent over said computer network from the computer to said server.” The Board’s reading is entirely correct.

B.E. gets no further in its passing reference (Br. 23) to the following limitations:

selecting advertising content for transfer to the computer in accordance with the demographic information associated with said unique identifier;

transferring said advertising content from said server to the computer for display by said program,

periodically acquiring said unique identifier and said computer usage information recorded by said software from the computer via said computer network.

A130-31, 22:65-23:5.

B.E. focuses in these references on the claim language “transfer to the computer” (B.E. Br. 23), but, once again, that phrase provides only the mechanics of *how* the information is transmitted. It says nothing about the *content* of the information.

Second, any doubt on this point is resolved by dependent claim 16.

That claim provides:

16. The method of claim 11, wherein said providing steps further comprise providing said computer software which, when run on the computer, requires a user login to use said software and ***associates a different unique identifier with each of a number of valid users*** of said software.

A131, 23:20-24 (emphasis added).

The inescapable conclusion is that one kind of “unique identifier” within the scope of claim 11 (the independent claim) is a “unique identifier” that is associated “with each of a number of valid *users*.”

It is hornbook law that a “[p]arent claim [] cannot exclude the scope of [a] dependent claim.” *Tomita Techs. USA, LLC v. Nintendo Co.*, 594 F. App’x 657, 664 (Fed. Cir. 2014). That is because “a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed.” 35 U.S.C. § 112(d). *See also AK Steel Corp. v. Sollac & Ugine*, 344 F.3d 1234, 1242 (Fed. Cir. 2003) (“Under the doctrine of claim differentiation, dependent claims are presumed to be of narrower scope than the independent claims from which they depend.”).

Because claim 16 specifically limits claim 11 to embodiments where the “unique identifier” is associated with “users,” a *user-specific* “unique identifier” *must* be within the scope of claim 11.

This also answers B.E.’s hypothetical situation involving “Users A, B, and C” that are “identified by AccountNos 1, 2, and 3.” B.E. Br. 24. B.E.’s example is exactly what claim 16 expressly discloses—“a number of valid users,” each with a “different unique identifier,” who each use the “software.” It follows, therefore, that this hypothetical must be within the scope of claim 11.

Dependent claim 16 thus confirms that the “unique identifier” cannot be limited to only the subset of unique identifiers that are computer-specific. The broader language in claim 11 must encompass embodiments where the “unique identifier” is specific to the user.⁴

Third, the specification provides substantial, additional evidence that the “unique identifier” can relate to users only and need not be tied to a specific computer. As the Board put it, “the several examples provided in the ’314 patent specification” are “consistent with” the conclusion that “the ‘unique identifier’ can include a user ID that uniquely identifies infor-

⁴ B.E. is correct in its assertion that the “unique identifier” in claim 11 *can* identify a computer. This is one possible embodiment of the “unique identifier”; but it is not the *only* embodiment. It therefore provides no support for B.E.’s position that the ’314 patent contemplates as one embodiment a cookie embodiment, in which the identifier may uniquely identify a computer. B.E. Br. 27-28.

mation sent over a computer network as information associated with a particular user.” A8-A9.

The specification could not be more clear. It explains that the “server 22 assigns a unique ID to the user and then stores that ID along with the received demographic data” A128, 17:12-14. This ID is then transferred to the client computer, where it is tied to user information: “The *user ID* that is stored along with the demographic data is used to anonymously identify the user for the purpose of demographically targeting advertising to that user.” A128, 17:29-31 (emphasis added).

B.E. attempts to refute this aspect of the specification by stating: “Importantly, ‘assigns a unique ID to the user’ does not encompass the identification of an individual user, as the Board mistakenly concluded, but instead teaches the identification of the user’s computer which made the download request.” B.E. Br. 27. This argument makes no sense. The phrase “assigns a unique ID to the user” means precisely what it says—the method gives a unique identifier to a user (that is, a person). Nothing in that phrase indicates, as B.E. would have it, that the ID identifies the *computer*.

B.E. next asserts that “the unique ID is associated with anyone who uses the computer.” B.E. Br. 27. But the specification says exactly the op-

posite: it discloses that because the identifier can be *user-specific*, multiple users can use the same computer yet receive user-specific results.

In the illustrated embodiment, the *user ID* is associated with a *user login* that is required each time the client software application is executed. By having the user login to the application, it can identify which demographics are associated with this particular user. Also, the provision of a user login allows the client software application to be utilized by *multiple users*, while permitting different demographically targeted advertising to be displayed for each user.

A128, 17:38-46 (emphasis added). (In pointing to this part of the specification, B.E. Br. 27, B.E. omits the material we have underlined.) Indeed, this “login” feature shows just how multiple users may use the same computer yet receive different results. *Contra* B.E. Br. 27-28.

Figure 9 demonstrates an algorithm that determines whether there is a “new login name” (at 150).

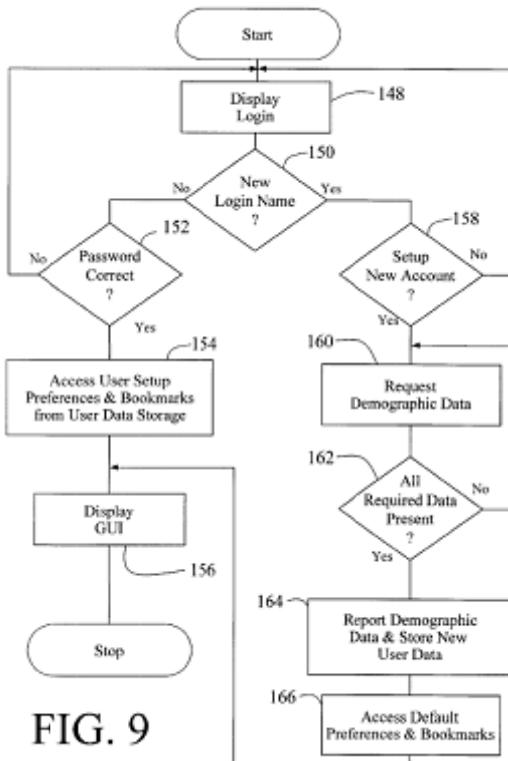


FIG. 9

A114. If there is a “new login name,” then the algorithm directs the “setup new account,” which includes “request demographic data.” *Id.* As the specification explains, “[i]f, back at block 150, the login name is determined to be new, the user can be queried as to whether they would like to set up a new account, as indicated at block 158.” A128, 18:1-5.

This refutes B.E.’s argument that only one “unique identifier” may be used per computer. If that were so, there would *never* be a “new login name.” The specification thus expressly contemplates that different users may login, with the same computer, by using different identifiers.

The specification also explains that the same “unique identifier” may be transferred to a different computer, proving that it cannot be limited to computer-specific information:

If desired, all user-specific information, including logins, password, demographic data, assigned ID, preferences, banner database, and bookmark lists can be stored together as a separate file and treated as a separate user object. This file can be stored locally on client computer 40 and reported back to server 22. Moreover, *this single file can then be used to transfer the user specific data between different computers upon which the application resides.*

A128, 18:21-28 (emphasis added). While B.E. asserts that “the ’314 patent makes it impossible to uncouple a given user ID from the computer that was assigned the user ID when it downloaded the software” (B.E. Br. 28-29), this portion of the specification teaches the exact opposite. The user ID *can*, the specification explains, be uncoupled from the computer on which it was first used.

There is more. Elsewhere, the specification discloses a note feature that allows communication among “individual users” through their “unique ID.” That is, “[n]otes” may be “sent between different users connected to the Internet is by way of ADM server 22, which acts as a messaging server, *identifying individual users* (whether senders or receivers) *by way of their unique ID* and handling the receipt and distribution of the

notes.” A125, 12:61-65 (emphasis added). Again, this embodiment *requires* that the “unique ID” be specific to the *user*.

The specification also discusses a user-specific feedback mechanism. The “client software application 10 communicates with server 22 from time to time and can report back computer usage information as well as information concerning the display of the banners.” A127, 16:17-24. “[T]his information,” the specification describes, “can be associated with *the user’s* demographic information (*by way of their unique ID*) at the server and then used by the advertisers to help them better understand the consuming public.” *Id.* (emphasis added).

B.E.’s contrary construction—that the “unique identifier” *cannot* identify a *user*—would exclude all of those embodiments. But “[a] claim construction that excludes the preferred embodiment ‘is rarely, if ever, correct and would require highly persuasive evidentiary support.’” *Adams Respiratory Therapeutics, Inc. v. Perrigo Co.*, 616 F.3d 1283, 1290 (Fed. Cir. 2010). B.E.’s construction thus has no evidentiary support whatsoever.

C. Logan discloses the “providing a unique identifier to the computer” limitation.

B.E.’s argument regarding the “providing a unique identifier to the computer” limitation also fails. B.E. argues (1) that this limitation re-

quires that “the unique identifier is provided by the server,” and (2) that Logan does not disclose using a server to provide the unique identifier. B.E. Br. 29-33. B.E.’s claim construction is wrong; no such limitation exists. But, even if it did, Logan nonetheless discloses this element.

First, B.E. is wrong as to the claim construction. It seeks a claim limitation—that the “unique identifier” must be “provided by the server” (B.E. Br. 31)—that lacks evidentiary support.⁵

B.E. does not attempt to anchor its argument in the claim language. It concedes that “the claim on its face does not explain the source of the unique identifier.” B.E. Br. 31. This concession is well founded—the relevant claim language says nothing about the source of the unique identifier:

providing a unique identifier to the computer, wherein said identifier uniquely identifies information sent over said computer network from the computer to said server.

A130, 22:59-62. To be sure, the claim directs that the “information” identified by the “unique identifier” is “sent over said computer network from

⁵ Again, our principal argument is that B.E.’s attempt to import a limitation from the specification is improper under *any* construction standard. But, to the extent there is any doubt, the broadest reasonable interpretation framework (*see Cuozzo*, 793 F.3d 1268) leaves no doubt that the Board’s construction is correct. It is especially inappropriate to graft a dubious limitation onto a claim in this context. *See In re Montgomery*, 677 F.3d 1375, 1380-81 (Fed. Cir. 2012).

the computer to said server.” *See, supra*, 26-28. But that says nothing as to how the “unique identifier” is provided to the computer.

Other aspects of the claim language show that B.E.’s construction is incorrect. Where certain information *must* come from the server, the patentee used the term “transfer.” For example, claim 11 has these elements:

transferring a copy of said software to the computer in response to a download request by the user,

...

selecting advertising content for transfer to the computer in accordance with the demographic information associated with said unique identifier;

transferring said advertising content from said server to the computer for display by said program.

A130-31, 22:57-23:2 (emphasis added). Claim 11 does not require the method to “transfer” the “unique identifier” to the computer. A130-31 22:42-23:7. It instead requires the method to “provid[e]” the unique identifier. *Id.*

“To give effect to all terms of the claim,” these separate terms “transfer’ and ‘provide’ “must have distinct meanings.” *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1354 (Fed. Cir. 2012). Here, the patentee used the word “transfer” to specify information that must come from the server; the different word “provide” is broader in scope.

B.E.’s effort to narrow the claim construction notwithstanding the clear language stems from its contention that the “314 patent involves client-server networked systems.” B.E. Br. 31-32. B.E. points to a single clause from the specification to support this argument—that “providing a unique identifier to the computer” refers to “receiv[ing] an assigned ID from the server.” B.E. Br. 32 (quoting A128, 18:14). This is a preferred embodiment of the ’314 patent. But nothing in the specification says that the only way for the computer to obtain the unique identifier is via a transfer from the server, nor does the claim language reflect such a limitation.

It is well established that “a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment.” *SuperGuide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004). Indeed, to graft such a limitation onto the broader claim language—and B.E. admits that the claim language is broader—there must be a “clear indication in the intrinsic record that the patentee intended the claims to be so limited.” *Liebel-Flarsheim*

Co. v. Medrad, Inc., 358 F.3d 898, 913 (Fed. Cir. 2004). No such “clear indication” exists here.⁶

The Board was thus correct to find that there was “no reason to import this receiving feature from the ’314 patent specification into the claims.” A15. The Board properly gave the claim language its natural meaning—the claims encompass “any system, process, or entity providing a unique identifier to the computer,” including but not limited to transfers from the server. *Id.*⁷

Second, even if B.E. were correct as to the claim construction, Logan nonetheless discloses a method in which the server provides a unique identifier to the user’s computer.

To begin with, Logan discusses an “[a]ccount [i]nitialization” process that occurs via a server, and, at its completion, results in an operational software program. A143, 8:31-10:5. “The account initialization begins with

⁶ To be sure, we also rely on the specification of the ’314 patent. *See, supra*, 30-35. But that is because the proper construction of a claim term will rarely *exclude* a preferred embodiment. *Importing* a claim limitation from the specification—as B.E. seeks to do here—is a different matter altogether.

⁷ Contrary to B.E.’s suggestion (B.E. Br. at 33), this argument is in no way inconsistent with Google’s position in its initial petition. To the contrary, Google advanced, and continues to advance, two independent, but entirely consistent arguments: the ’314 patent does not require the limitation that B.E. asserts, but even if it did, that limitation is disclosed by Logan. There is no inconsistency in pressing both arguments.

the transmission of an HTML form from the web page store 141,” and this “account information is then transmitted [] using a HTTP post method directed at a form processing CGI script executed by *the server at 127* to place descriptive information about the user in an assigned user data file as seen at 143.” A143, 8:46-54 (emphasis added). Subsequently, “[a]fter the account has been established, utility programs and data may be downloaded from *the FTP server 125* to the client/player 103.” A143, 8:54-56 (emphasis added). All of this account initiation, which results in an operational player on the user’s computer, expressly occurs via transmissions from the server to a user’s computer.

An operational player on the user’s computer, moreover, must possess the unique identifier (the “AccountNo”). After account initiation, the “client/player 103” must be capable of uploading the usage information to the server. This requires the “client/player 103” to provide to the server the “AccountNo,” as that is necessary for the server to manage and update the Account tables. A147, 16:58-65; A152, 26:35-52.

In other words, Logan clearly discloses two things: (1) Logan discloses a method where an account initiation procedure, which utilizes only transfers from the server, results in an operational player on the user’s

computer; and (2) Logan discloses that the operational player on the user's computer *must* have the unique identifier.

It is thus "inherent" in Logan's disclosure that the unique identifier must have been provided by the server. *Schering Corp. v. Geneva Pharms.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003). That is because, "[u]nder the principles of inherency, if the prior art necessarily functions in accordance with, or includes, the claims limitations, it anticipates." *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1376 (Fed. Cir. 2005) (quotation omitted).

It was on this basis that Google's expert, Dr. Stephen Gray, testified in his declaration that Logan disclosed this feature:

Since Logan discloses that the player 103 uploads a usage log including AccountNo to the server 101, and that the server is what maintains and keeps track of users and programming (see generally FIG. 4), it is my opinion that one skilled in the art would recognize that the server necessarily provided this AccountNo to the computer prior to the upload process (e.g., during the initial download process at Step 207). *See id.* at FIG 2.

A224, ¶ 111. Likewise, in his deposition, Dr. Gray testified that the "unique account number" is "provided by" the "hosting device." A1328:18-23.

If, contrary to our first submission, the '314 patent requires the server to provide the unique identifier, that is disclosed by Logan.

II. Claim 15 Is Obvious In View Of Logan Combined With Robinson.

Claim 15 identifies a specific kind of “unique identifier”— “[t]he method of claim 11, wherein said providing a unique identifier step further comprises storing a cookie on the computer.” A131, 23:17-19. Google acknowledges that Logan does not disclose storing a cookie on the subscriber’s computer.

But different prior art, U.S. Patent No. 5,918,014 (“Robinson”), does disclose the use of a cookie. The Board noted that Robison discloses that “[t]racking data can be stored locally on a user’s computer.” A21 (citing A170, 7:26-28). That storage occurs through a “cookie” that “can be generated and stored on a user’s computer.” A21 (citing A170, 8:42-44). “The cookie contains the identifier of the user, and the user ID in the central database is updated with tracking information from the cookie. A22 (citing A171, 10:11-14).

B.E.’s sole argument on appeal is that the Board failed to demonstrate “that the Logan system suffered from some security inadequacy that would motivate a person of ordinary skill to seek solutions” such as use of a cookie. B.E. Br. 34. The Board’s conclusion that concern about security would provide the requisite motivation is plainly correct.

Logan describes that the “data field supplied by a new subscriber at the initialization step 203 may advantageously include the user’s full name and billing address, credit card information or the like for use in subscriber billing,” as well as other personal information. A143, 8:64-67. As Robinson makes clear, one skilled in the art would see a problem—the need for privacy and security in connection with providing personal information over the Internet.

Robinson, prior art in the same field of invention, discloses, as the Board put it, “the motivation to increase security.” A23 (citing A170, 8:39-41). Specifically, Robinson explains that one not “insignificant[]” problem surrounding data collection for Internet advertising is “fear[] of an invasion of privacy.” A167, 1:50-51. This is, according to Robinson, “a problem that must be dealt with.” A167, 1:51-52.

Robinson teaches that a “cookie mechanism” is a solution to this problem, as it “provides a very high level of security.” A170, 8:40-41. With this element, “[a] user’s randomly generated cookie is stored on the user’s machine; and that is the one and only way information stored on a central database is associated with that user.” A170, 8:41-44. Robinson, moreover, explains that this feature provides a central means to solve the privacy problem, providing a distinct advantage over other options:

Moreover, there is no need to store user-identification information such as email addresses (or phone numbers or postal addresses, etc.,) on the central system. So there is no way the company running the system will have the ability to do anything to intrude on the user's privacy. For instance, there would be no way that the tracking or demographic information could be sold as the basis of a mailing list (email or otherwise). The fact that such identifying information does not need to be stored in the database is a key feature of this invention.

A170, 8:51-60.

As Google's expert Dr. Gray testified, it would have been obvious to a person of ordinary skill in the art to modify Logan's system in view of Robinson to use a web-based system wherein the "AccountNo" is provided via a cookie mechanism, and all information provided by the Logan player is then identified by that "AccountNo." A260-61, ¶¶ 155-58. Such a system would have the advantages of increased security and a lack of reliance on personally identifiable information, as explained by Robinson.

Robinson is thus evidence of exactly the kind of "design need or market pressure" that supplies an adequate motivation to cause one skilled in the art to combine. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007). The Board was correct to hold "that a person with ordinary skill in the art would have been motivated to modify Logan with Robinson's cookie mechanism in order to increase security by storing information locally on a user's computer." A23. Indeed, "[a]n increase in security is an advantage de-

rived from combining Logan and Robinson and is disclosed expressly by Robinson.” *Id.* As the Board concluded, this is “an articulated reasoning with a rational underpinning for combining the references” in accord with *KSR*. *Id.*

For its part, other than *ipse dixit*, B.E. offers no reasoned argument contrary to this conclusion. B.E. does not argue (and has thus waived) any contention that the use of a cookie in Logan leads to an unexpected result. B.E. does not contend (and thus has waived) that any secondary consideration tugs against a finding of obviousness. The Board’s finding as to motivation—which is “a pure question of fact”—is thus supported by substantial evidence. *Spectrum Pharms., Inc. v. Sandoz Inc.*, 802 F.3d 1326, 1333 (Fed. Cir. 2015).

III. The Board Properly Denied B.E.’s Motion to Amend.

The Board correctly rejected B.E.’s contingent request to amend its claims. A23-27. The standard is clear: B.E. “has the burden of proof to establish that it is entitled to the requested relief.” *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1304 (Fed. Cir. 2015) (quoting 37 C.F.R. § 42.20(a)). B.E. failed to meet that burden.

B.E. proposed two primary amendments:

- wherein the computer usage information comprises information about the user’s interactions with said com-

puter software displaying advertising content and at least one other program....

- selecting advertising content for transfer to the computer in accordance with real-time and other computer usage information and demographic information associated with said unique identifier.

A1580 (underlining in original).

The Board rejected these amendments because B.E. failed to offer any claim construction or sufficient written description support for its amendments. A25-A27. That decision was correct. And, in any event, the amendments were futile because these additional proffered elements are disclosed in the prior art.

A. The Board properly exercised its discretion in denying the motion to amend.

In denying B.E.'s motion to amend the claims in the '314 patent, the Board properly exercised its discretion. It relied on two independent and adequate grounds: B.E. failed to proffer claim constructions for its proposed amendments (A25-A26), and B.E. failed to identify sufficient written description support for its amendments (A26-27).⁸

⁸ B.E. maintains that, because of the 15-page limit then in effect as to motions to amend, it was "impossible" for B.E. to provide additional detail as to its proposed amendments. B.E. Br. 39 n.1. But B.E.'s motion was only 13 pages long. See A1587.

Lack of claim construction. The Board previously explained, in *Idle Free Systems, Inc. v. Bergstrom, Inc.*, IPR2012–00027, 2013 WL 5947697 (PTAB June 11, 2013), that, in a motion to amend, the patentee must “come forward with technical facts and reasoning about those feature(s), including construction of new claim terms, sufficient to persuade the Board that the proposed substitute claim is patentable.” In *Proxyconn, Inc.*, 789 F.3d at 1304, the Court discussed *Idle Free* approvingly, noting that the Court “accept[s] the Board’s interpretation of Patent and Trademark Office regulations unless that interpretation is ‘plainly erroneous or inconsistent with the regulation.’” *Id.* at 1306. And the Court affirmed the Board’s rejection of an amendment where the Board relied, in part, on the fact that the patentee had not “construed the newly added claim terms.” *Id.* at 1305.

Here, B.E. did not provide any construction for its proposed amendments. B.E. does not argue otherwise—it instead contends that none was needed. B.E. Br. 35-36. But the Board was within its discretion to hold otherwise. The proposed claim, for example, does not provide any guidance on how to construe “selecting advertising content for transfer to the computer in accordance with real-time and other computer usage.” What is “real-time” usage? Does it relate to what a computer user has done over

the past minute? The past hour? The current session? The last day? The last week?

How is that information transmitted? Is it done continuously and instantaneously? Is it delayed and placed into packets?

And what is included in “real-time” information? The proposed claim *separately* discusses “computer usage” and “demographic information.” What, then, qualifies as “real-time” information?

B.E. failed to provide claim constructions for its proposed amendment, and thus failed to provide adequate information for the Board to determine the patentability of the substitute claims. A26.

Failure to provide adequate written description. The Board also was within its discretion to conclude that B.E. did not meet its burden of justifying an amendment because the motion to amend did not identify clearly the written description support for each proposed substitute claim. See 37 C.F.R. § 42.121(b). B.E. admits that the only showing it made as to written description support was this passage:

The as-filed version of the '705 application is submitted herewith as Exhibit 2004. Support for proposed substitute claim 23 can be found in at least original claim 11, as well as the Abstract; page 4, lines 21-28; page 5, lines 6-7; page 8, lines 13-27; page 9; page 10, lines 1-13; page 11, lines 18-20; page 13, lines 18-22; page 14, lines 16-25; page 15, lines 7-26; page 17, lines 12-13; page 20, lines 19-28; page 21, lines 1-2 and 20-28; and pages 25-28.

B.E. Br. at 38. That passage includes citations that span at least 18 pages. Indeed, one of the citations simply refers to the entirety of "page 9." Once again, the burden was on B.E., not the Board, to link amended claim 23 to specific disclosures in the written description.

As the Board explained, B.E. "fail[ed] to point out with any particularity or explanation as to where in the several cited passages the additional limitations are supported." A27. Likewise, B.E. "fail[ed] to provide citations and explanations for support for substitute claims 24-34." *Id.* As the Board found, "it is unclear from [B.E.'s] discussion in which passage there is support for the limitation 'selecting advertising content for transfer to the computer in accordance with real-time.'" *Id.*

These aspects of the lack of written support are particularly troublesome. As we described, what qualifies as "real-time" is open to substantial dispute, but B.E. does not—and cannot—point to any part of the '314 spec-

ification (or the '705 application) that provides the necessary detail to give concrete bounds for “real-time.”

It is likewise unclear what qualifies as “other computer usage information.” The claim and the specification do not sufficiently convey to a person of ordinary skill in the art if this “other computer usage information” is specific to a user or general information attributed to any user. And it also is unclear from where in the specification this “other computer usage information” is derived. B.E.’s failure to identify clearly the written description support for proposed claim 23 thus provided separate, appropriate grounds for the Board to deny its motion to amend.

B.E. is wrong, moreover, to suggest that the abstract and 13 specific lines it points to in its appeal brief (as opposed to the pages of general citation it provided in its motion) provide sufficient written description support. B.E.’s proposed claim requires the use of “real-time” information in a specific way: for “selecting advertising content for transfer to the computer.” A1577. It thus must be the *server* that uses the real time information. But the abstract and the snippet of the application B.E. cites do not disclose the *server* using real time information; those portions of the patent suggest that it is the program on the *user’s computer* that uses real time information. A105; A1599.

Indeed, the part of the application B.E. cites says that “[t]hese identifiers permit real time, reactively-targeted advertising since *the program* can respond to user interaction with the computer to determine whether the input relates to a particular category of information and, if so, can select advertising related to that category of information.” A1599, 10-13 (emphasis added). It is therefore the *program*—not the server—that selects advertising based on real time data. B.E. thus cannot show written description support for its very different claim in the application as filed.

B.E. also argues that its written description support resembles that offered by the U.S. government in an amendment that the Board allowed in the *International Flavors* case. B.E. Br. 36-38. But the motion to amend in *International Flavors* was *unopposed*. See *Int'l Flavors & Fragrances Inc.*, IPR2013-00124, 2014 WL 2120542, at *1 (May 20, 2014). And, in any event, the written description support in *International Flavors* was far more specific: it provided eleven paragraphs to identify support for eighteen substitute claims. See e.g., B.E. Br. at 37. Indeed, the U.S. government identified the specific paragraph or paragraphs relevant for each amended claim. *Id.* B.E., by contrast, cited application material spanning 18 pages for a *single* substitute claim, which provides far less clarity. *Id.* at 38.

Finally, the written description support that will suffice in one context is not controlling for a very different motion to amend for a different patent related to different technology. That is because “determining whether a patent complies with the written description requirement will necessarily vary depending on the context.” *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). “Specifically, the level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology.” *Id.*

B. B.E.’s proposed amendments also are futile.

B.E.’s motion to amend was in addition futile because B.E. could not in light of the prior art satisfy its “burden of establishing patentability of the substitute claims.” *Proxyconn, Inc.*, 789 F.3d at 1305. The Board’s decision is thus properly affirmed on this ground, too, as “the correctness of the decision appealed from can be defended by the *appellee* on any ground that is supported by the record.” *Rexnord Indus., LLC v. Kappos*, 705 F.3d 1347, 1356 (Fed. Cir. 2013); *see also Tempo Lighting, Inc. v. Tivoli, LLC*, 742 F.3d 973, 979 (Fed. Cir. 2014).

The “user interaction” limitation. As noted above, B.E. proposed to amend its claim to add a limitation that would require “computer usage

information” relating to “the user’s interactions with said computer software displaying advertising content and at least one other program.” A24. As we understand this limitation, it requires that the method consider what a user does with a program other than the claimed advertising program, such as the user’s Internet browser or video player. But that is plainly disclosed by Logan as well as other prior art. (If B.E. suggests that we misunderstand its limitation, that would serve to confirm the deficiencies in its description of the proposed amendment, as identified above.)

Logan discloses that the selection process for advertisements utilizes computer usage information including the user’s interaction with the software program. For example, Logan’s “usage log,” which includes information about the identification, start time, volume, and playing speed of the program segments played by the user, is used in a subscriber’s TopChoices and ChoiceCounts records. A150, 21:30-43. In turn, these TopChoices and ChoiceCounts records are used in the InterestMatch function (A151, 24:33-49), which is then used to determine what advertisements are of interest to a user. *Id.* at 24:51-25:14; *see also* A136, Fig. 4, element 342; A153, 27:53-62; A162-63, claim 19. Accordingly, Logan discloses the newly claimed “user interaction” limitation.

Beyond Logan, U.S. Patent No. 6,230,204 (“Fleming”)⁹ discloses an element where user interaction data is collected across multiple programs. One embodiment in Fleming discusses usage statistics relating to accessing a document as well as using another program—there, for example, titled “Dune Buggy Racer.” A1915, 12:29-55. Fleming provides a figure demonstrating how the method may monitor usage of both programs:

DOCUMENT	1010	COMBINED USAGE INFORMATION	USER INFORMATION
PRESIDENT CLINTON ANNOUNCES NEW STANDARDS TODAY. PRESIDENT CLINTON ANNOUNCED NEW STANDARDS FOR EDUCATIONAL TESTING. WHILE LOCAL TEACHERS WERE SKEPTICAL, PRESIDENT CLINTON INSISTED THAT THE CURRENT EDUCATIONAL SYSTEM WAS BROKEN, AND NEEDED TO BE FIXED. <SELECT HERE TO SEE PRESS PHOTO>	8/17 10:50-11:30 8:30-8:55 8/18 2:15-2:25 8/19 4:05-5:35 4:30-4:45 8:10-8:35	OPEN;VIEW;CLOSE OPEN;VIEW;CLOSE OPEN;VIEW;CLOSE OPEN;VIEW;CLOSE OPEN; DISPLAY IMAGE; CLOSE	USER 1 USER 2 USER 4 USER 1 USER 2 USER 3
PROGRAM	1040	USAGE INFORMATION	USER LIST
DUNE BUGGY RACER	8/17 9:30-10:45	EXECUTE	USER 3
TOTAL RESOURCE USAGE BY ALL USERS WITH ACCESS			
TOTAL USAGE ESTIMATION			
DOCUMENT 10	VIEW (MINUTES)	DISPLAY IMAGE (MINUTES)	EXECUTE (MINUTES)
	ACTUAL EXTRAPOLATED	ACTUAL EXTRAPOLATED	ACTUAL EXTRAPOLATED
USER 1	130 260	0 0	0 0
USER 2	25 25	2 100	0 0
USER 3	15 5	0 10	0 0
TOTAL	170 290	2 110	0 0
PROGRAM 40	VIEW (MINUTES)	MODIFY (MINUTES)	EXECUTE (MINUTES)
	ACTUAL EXTRAPOLATED	ACTUAL EXTRAPOLATED	ACTUAL EXTRAPOLATED
USER 1	0 0	0 0	0 0
USER 2	0 0	0 0	0 25
USER 3	0 0	0 0	75 150
TOTAL	0 0	0 0	75 175

Fig. 10

A1909. Fleming explains:

For example, document 1010 was accessed on 8/17 from 10:50-11:30 AM by user 1 who opened, viewed and closed the document. In a similar manner, document 1010 was accessed again on 8/17 from 8:30-8:55 PM by user 2 who opened, viewed and closed the document; on 8/18 by user 4 from 2:15-2:25 PM who

⁹ Fleming was filed on December 19, 1997 and therefore qualifies as prior art under 35 U.S.C. § 102(e).

also opened, viewed and closed; on 8/19 by user 1 from 4:05-5:35 PM and user 3 from 4:30-4:45 PM, who both opened, viewed and closed; and by user 2 from 8:10-8:35 PM who opened the document, displayed the image, and closed the document. Program 1040 is an executable software program entitled “Dune Buggy Racer,” and usage information 1050 and user list 1060 correspond to program 1040. These indicate that program 1040 was accessed by user 3 who executed the program on 8/17 from 9:30-10:45 AM.

A1915, 12:41-55.

Like Logan, Fleming is also directed to better targeting ads to users.

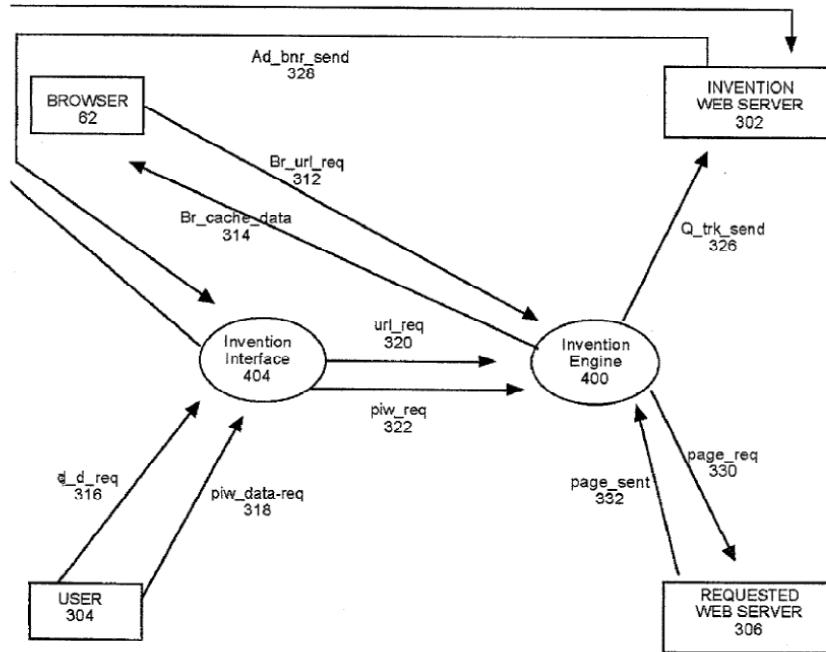
See A1911, 4:1-4; A1913, 8:5-26; A1901, Abstract. It would have been obvious to incorporate the features of monitoring various types of programs and various types of usage information as suggested by Fleming into the system of Logan for the purpose of determining the effectiveness of certain advertisements. *See, e.g., A1911, 4:1-4.*

The “real time” limitation. Although it is unclear what “real-time” means in the context of the proposed claim amendment, the general use of “real time” user data with targeted advertising was well-described in the prior art. Google offered two prior art references to the Board, both of which demonstrate that the concept was well known in the mid 1990s. Because B.E. provides no specific definition of what it means by “real time” here (thus leading to the Board’s rejection of the amendments as improp-

er), it cannot suggest that its use of the concept differs from what was disclosed in the prior art.

Ferguson. U.S. Patent Application Publication No. 2002/0178232 (“Ferguson”), was filed on December 10, 1997, and therefore qualifies as prior art under 35 U.S.C. § 102(e). A1815. Ferguson discloses a targeted advertising system that monitors a user’s interactions with the computer. *See Id.* (Ferguson at Abstract). Indeed, Ferguson discloses that the Invention Engine 400 monitors a user’s interaction with the computer including activities on the Invention Interface 404 and HTTP requests issued from the browser 62, and it “uses the data for targeting advertising.” A1848, ¶¶ 124-25.

For example, Figure 5, reproduced below, illustrates the flow diagram of Ferguson’s invention.



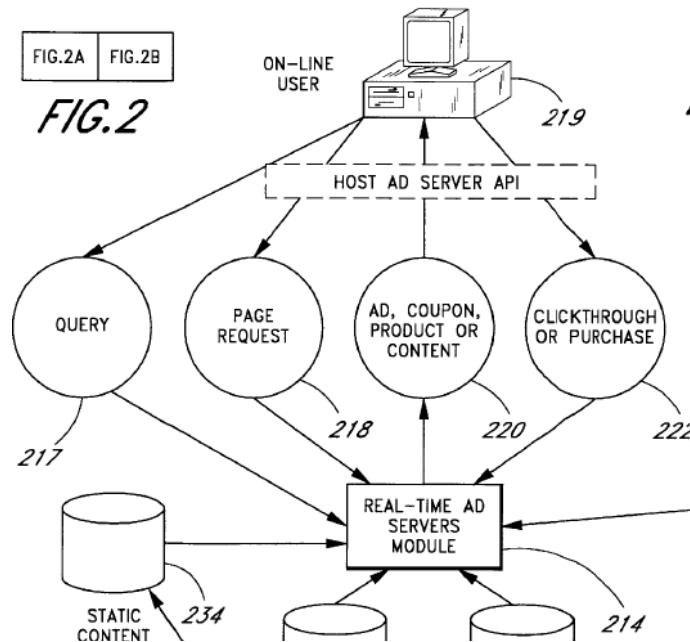
A1820.

One disclosed embodiment is an “ad targeting system[] that deliver[s] advertising according to users’ *real time* surfing patterns or habits,” including “[a]utomatic logging, storage, and uploading of Page-In-View data, wherein the URL of the page on display when an ad is clicked upon is periodically reported back to the Invention Web Server 302.” A1859, ¶ 206 (emphasis added).

Lazarus. U.S. Patent No. 6,134,532 (“Lazarus”) was filed on November 14, 1997, and qualifies as prior art under 35 U.S.C. § 102(e). A1860. Lazarus also discloses a system for selecting and presenting advertisements based on historical computer usage information as well as real-time information. As noted by Lazarus, due to the “interactive nature of the In-

ternet and electronic commerce[, a]dvertisers need to be able to identify users of specific interests, track those interests over time . . . and need to track user interests and behavior in a *real-time manner.*" A1885, 4:40-47 (emphasis added).

As shown in Figure 2, reproduced in part below, Lazarus discloses that a "real-time ad server (RTAS) module 214 is the engine which observes the user behavior, and based upon that behavior, selects the appropriate ad to present to the user computer 219." A1888, 9:39-42.



A1862. After receiving real-time user behavior data, RTAS module 214 sends the data (in the form of user behavior vector) to the Profile Vector Update Server (PVUS) module 224 for updating of the user profile vector. See A1892, 18:36-41; see also A1892-93, 18:23-19:15. The "updated user

profile vector is then used as the basis for selecting relevant ads to display to the user [wherein] [r]elevance is determined by closeness of the user profile vector to entity vectors stored in the ad vector database.” A1896, 26:18-21.

Accordingly, Lazarus, like Ferguson, teaches using real-time and historical user activity to select relevant advertising.

The motivation for combining either of these references with Logan is clear: it would have been obvious to one of ordinary skill in the art to incorporate the features of usage information including interactions with other programs and real-time feedback as suggested by Ferguson and Lazarus into Logan for the purpose of selecting advertising content for a user that is more relevant to the user’s immediate interests, demographics, and past activities. At the very least, it would have been “obvious to try” this option. *See KSR*, 550 U.S. at 421.

Google’s expert, Dr. Gray, testified about this expressly, grounding his analysis in the prior art. As to Fleming, for example, Dr. Gray testified:

[I]t would have been obvious to one of ordinary skill in the art to incorporate the features of recording usage information that includes interactions with other programs and real-time feedback as suggested by Ferguson into Logan for the purpose of selecting advertising content for a user that is more relevant to

the user's immediate interests, demographics, and past activities. This is in part due to the prior art references all being in the same field of endeavor and intended to accomplish the same or similar functions and goals as well as the well-developed nature of the field of art by at least 1998. Specifically, a person of ordinary skill in the art would be motivated to make the combination of Logan and Ferguson since both are concerned with identifying more relevant targeted advertising. Combining the approaches of both references would yield more pertinent advertisements. [See, e.g., Logan col. 25, ll, 15-25, Ex. 1002; Ferguson at 0123-0125, Ex. 1022].

A1804-05, ¶ 24. And Dr. Gray provided similar testimony as to the motivation to combine Lazarus and Logan. A1808, ¶ 30. Therefore, the proposed amendments were futile.

IV. The Broadest Reasonable Construction Standard Is Correct And, In Any Event, Immaterial To This Case.

B.E. acknowledges (B.E. Br. 40-41) that this Court has conclusively held it proper for the PTAB to use the broadest reasonable interpretation standard for claim construction during *inter partes* review. *See In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268 (Fed. Cir. 2015). B.E. thus addresses the argument solely for purposes of issue preservation. B.E. Br. at 40-42.¹⁰

¹⁰ The arguments that B.E. identifies were considered and rejected by *Cuozzo*. Contrary to B.E.'s assertion (B.E. Br. at 41-42), the Court held that the AIA *does* confer rulemaking authority. 793 F.3d at 1275-80. Likewise, the Court considered the adjudicatory nature of IPRs, but nonetheless concluded that the broadest reasonable interpretation is correct.

While *Cuozzo* was correct to hold that the broadest reasonable interpretation standard governs *inter partes* review proceedings, that holding is largely immaterial in the context of this case. Here, there are two claim construction disputes. First, B.E.’s contention that “unique identifier” must be specific to a computer (*see, supra*, 24-35) and, second, B.E.’s contention that the unique identifier must be provided by the “server” (*see, supra*, 35-39). Not only was the Board’s construction of these terms reasonable, but in addition we have explained (*see, supra*, 26 n.2 & 36 n.5) that B.E.’s preferred constructions are wrong under *any* claim construction protocol.

CONCLUSION

The Court should affirm the Board’s Final Written Decision.

Respectfully submitted,

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Id. at 1278. B.E. thus does not offer—and does not purport to offer—any basis for this Court to reconsider *Cuozzo*.

CERTIFICATE OF COMPLIANCE

Pursuant to Federal Rule of Appellate Procedure 32(a)(7)(C), the undersigned counsel certifies that this brief:

- (i) complies with the type-volume limitation of Rule 32(a)(7)(B) because it contains 11,795 words, including footnotes and excluding the parts of the brief exempted by Rule 32(a)(7)(B)(iii); and
- (ii) complies with the typeface requirements of Rule 32(a)(5) and the type style requirements of Rule 32(a)(6) because it has been prepared using Microsoft Office Word 2007 and is set in Century Schoolbook font in a size equivalent to 14 points or larger.

Dated: December 8, 2015

/s/ Andrew J. Pincus

CERTIFICATE OF SERVICE

I hereby certify that on December 8, 2015, I served the foregoing Brief for Appellants on each party separately represented by CM-ECF.

Dated: December 8, 2015

/s/ Andrew J. Pincus